

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-009894**Date Inspected:** 18-Oct-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Zhu Tian Shu, Mr. Li Yang, Mr. Lv Li Qing

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG BAY 2

This QA Inspector observed ZPMC welder Mr. Li Guo Ping, stencil 045251 is using shielded metal arc process WPS-B-T-2112 to make OBG floor beam fillet tack weld FB3056-001-110. This QA Inspector observed Mr. Li Guo Ping is certified to make this weld. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which is warm to the touch and it appears to be connected to the welding power supply cable. Items observed on this date appeared to generally comply with applicable contract documents.

OBG BAY 5

This QA Inspector observed ZPMC welder Mr. Si Gao Feng, stencil 204342, is using flux cored welding procedure WPS-B-T-2132 to make traveler rail weld 10TR3-016-010. This QA Inspector observed a welding current of approximately 310 amps 30.5 volts and Mr. Si Gao Feng is certified to make this weld. Items observed

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on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Song Aiying, stencil 215689, is using flux cored welding procedure WPS-B-T-2132 to make traveler rail weld 10TR3-016-010. This QA Inspector observed a welding current of approximately 310 amps 30.6 volts and Ms. Song Aiying is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Jiang Min Quan, stencil 215185, is using welding procedure WPS-B-T-2132-3 (2F) to make cross beam weld CB202A-016-011. This QA Inspector observed a welding current of approximately 310 amps and 32.3 volts. This QA Inspector observed Mr. Jiang Min Quan is certified to make this weld and that ZPMC QC Inspector Mr. Zheng Zhi Wei is monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Li Yuanzheng, stencil 217185, is using welding procedure WPS-B-T-2132-3 (2F) to make cross beam weld CB202A-016-011. This QA Inspector observed a welding current of approximately 325 amps and 30.1 volts. This QA Inspector observed Mr. Li Yuanzheng is certified to make this weld and that ZPMC QC Inspector Mr. Zheng Zhi Wei is monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

OBG BAY 10

This QA Inspector observed ZPMC welder Mr. Chang Chuan Gang, stencil 053870 is using flux cored welding procedure WPS-345-FCAW-2F(2G) repair to make north tower lift 3 weld repair NSTL3-3B-3B/K-84A. This QA Inspector observed a welding current of approximately 290 amps and 29.0 volts. This QA Inspector asked ZPMC CWI Mr. Chen Ying Xin if the base material adjacent to this weld was within an acceptable temperature range as listed in the WPS and after Mr. Chen Ying Xin used various temperature indicating crayons Mr. Chen Ying Xin informed this QA Inspector that the base material is slightly above the maximum of 230 degrees Celsius, and he will have Mr. Chang Chuan Gang wait a few minutes until the base material has cooled prior to any additional welding. This QA Inspector observed Mr. Chang Chuan Gang is certified to make this weld and items observed by this QA Inspector appear to be progressing in compliance with project specifications.

This QA Inspector observed ZPMC welder Mr. Bi Chun, stencil 040343 is using flux cored welding procedure WPS-345-FCAW-2F(2G) repair to make north tower lift 3 weld repair NSTL3-3B-3B/K-84A. This QA Inspector observed a welding current of approximately 290 amps and 29.5 volts. This QA Inspector asked ZPMC CWI Mr. Chen Ying Xin if the base material adjacent to this weld was within an acceptable temperature range as listed in the WPS and after Mr. Chen Ying Xin used various temperature indicating crayons, Mr. Chen Ying Xin informed this QA Inspector that the base material meets the WPS temperature requirements. This QA Inspector observed Mr. Bi Chun is certified to make this weld and items observed by this QA Inspector appear to be progressing in compliance with project specifications.

OBG BAY 14

This QA Inspector observed ZPMC welder Mr. Xu Liguang, stencil 200114 has been using shielded metal arc welding procedure WPS-B-P-2214-TC-U5B-FCM to complete weld SSD16A-PP080-222. This QA Inspector

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observed ZPMC QC Inspector Mr. Zhang Xian Ji has recorded a welding current of 173 amps. This QA Inspector observed that Mr. Xu Liguang is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Tu Zhi Wu, stencil 214945 has recently used flux cored welding procedure WPS-B-T-2132 to make OBG weld SSD24-PP86.5 to weld angle braces on side plate stiffeners between panel points PP90 and PP91. This QA Inspector observed ZPMC Quality Control Inspector Mr. Zang Xian Ji has recorded a welding current of 210 amps and 25.3 volts. This QA Inspector verified Mr. Tu Zhi Wu is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Jin Chen Mao, stencil 058551 is using flux cored welding procedure WPS-B-T-4133 to make corner assembly weld CSD6-PP95-008. This QA Inspector measured a welding current of approximately 210 amps and 28.0 volts and Ms. Jin Chen Mao is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

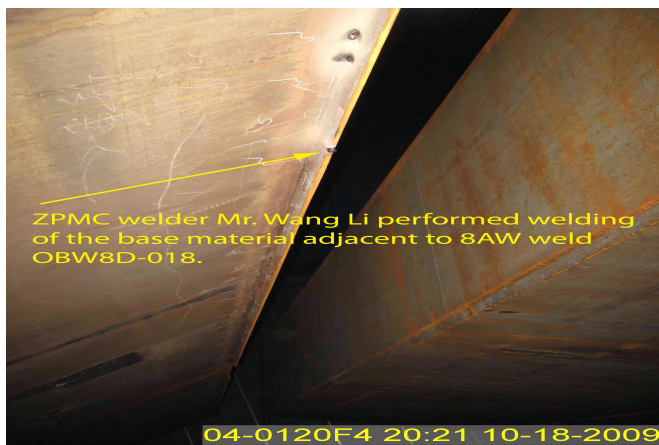
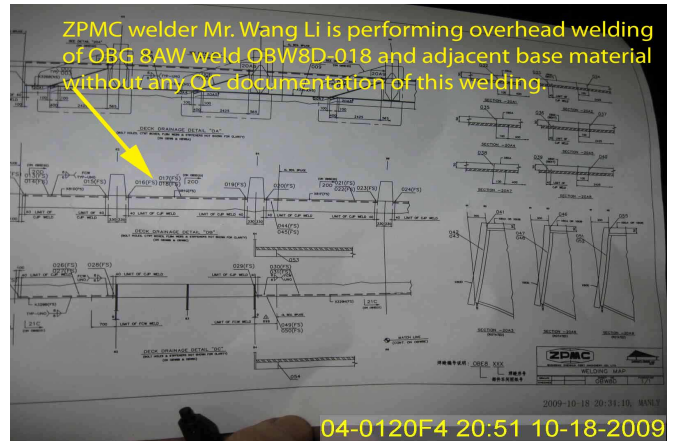
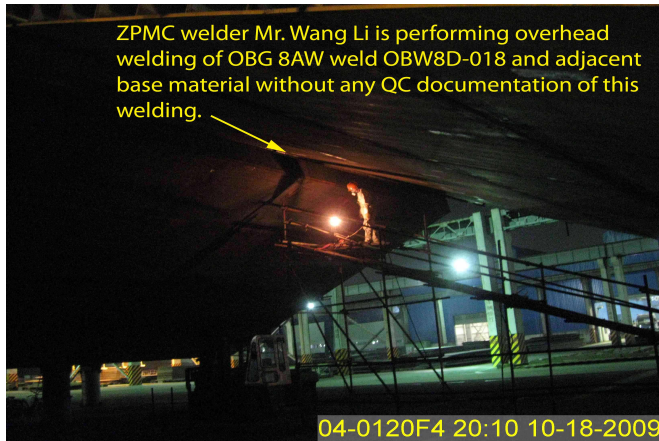
This QA Inspector observed ZPMC welder Mr. Li Xian You, stencil 047866 has recently used flux cored welding process WPS-B-T-2232-TC-U5-F to make OBG weld SEG015C-064. This QA Inspector observed ZPMC QC inspector Mr. Xu Tao has recorded a welding current of 317 amps and 31.4 volts. This QA Inspector observed Mr. Li Xian You is certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

Segment 8AW outside OBG Bay 13

This QA Inspector observed ZPMC welder Mr. Wang Li, stencil 044772 is using shielded metal arc welding procedure WPS-BP-2114-FCM-1 to make overhead (4F) weld repairs of segment 8AW weld OBW8D-018 and the adjacent base metal. This QA Inspector observed a welding current of approximately 170 amps. This QA Inspector observed that Mr. Wang Li is certified to make this weld and the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container which does not feel warm to the touch and the container is not connected to any power supply cable. This QA Inspector asked ZPMC QC representative Mr. Zhang Xian Ji “what is this weld number” and “where is the QC inspection documentation for these welds?” Mr. Zhang Xian Ji informed this QA Inspector that he does not know the weld number and his supervisor has informed him that these repairs do not require any documentation to be issued. This QA Inspector informed Mr. Zhang Xian Ji that welder Mr. Wang Li is performing repairs of an existing weld and a QA welding document is required for this activity. This QA Inspector then discussed these issues with ZPMC CWI Mr. Lv Li Qing and after a few minutes Mr. Zhang Xian Ji informed this QA Inspector that the weld number is OBW8D-018 and that QC will have dayshift personnel issue welding documentation for this weld repair. This QA Inspector observed ZPMC welder Mr. Wang Li has connected the welding electrode storage oven to an electrical power supply. Items observed on this date do not appear to fully comply with applicable contract documents.

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Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul
Reviewed By:	Carreon,Albert

Quality Assurance Inspector
QA Reviewer
